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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/981,276 | 10/17/2001 | Kave Eshghi | 10015123-1 | 6378 |

7590 01/06/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

HAMZA, FARUK

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
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2155

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,276

Applicant(s)

ESHGHI ET AL.

Examiner

Faruk Hamza

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 17 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. This action is responsive to application filed on October 17, 2001. Claims 1-16 are pending.

Drawings

2. The drawings are objected to because Fig 4 section 64 has incorrect arrow. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 4-7, 10-13 and 16 are rejected under 35 U.S.C. 112, first paragraph. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 4, 10 and 16 contains "Marshaling algorithm", "digest", and "cryptographic hash" and claim 5, 11 contains "un-marshall" which is not described in the specification. Claims 5-7 are rejected because these are dependent on claim 4 and claims 11-13 are rejected because these are dependent claim of 10.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4-7, 10-13 and 16 are rejected under 35 U.S.C. 112, second paragraph. Claim 4, 10 and 16 recites 3 algorithms but it is not specified which of these 3 algorithms is used to generate the state. Note that applicant's disclosure, page 9, lines 19-24, merely recites the 3 algorithms, but does not provide any specifications as to how they are used. Claims 5-7 is rejected because these are dependent of claim

7. The term " Marshal algorithm", "digest", and "cryptographic hash" in claim 4,10 and 16 is a relative term which renders the claim indefinite. The terms "Marshal algorithm ", "digest", and "cryptographic hash" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claims 4, 10 and 16 are rejected for the above reason and claims 5-7 are rejected because these are dependent on claim 4 and claims 11-13 are rejected because these are dependent on claim 10.

8. The term "un-marshal" in claim 5 and 11 is a relative term which renders the claim indefinite. The term " un-marshal " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claim 5 and 11 are rejected for above reason.

9. Claims 7 and 13 recite the limitation "its" in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1,2,3,8,9,14,15 are rejected under 35 U.S.C. 102(e) as being anticipated by Hoang et al. (U.S. Patent Number 6,499,052), hereinafter referred to as Hoang.

12. Hoang has disclosed:

- <Claim 1>

A data service system, comprising:

a plurality of web servers, each servicing any request received by the data service System; (Fig. 1, Column 5, lines 1-5).

a plurality of application servers, each processing any request directed from any one of the web servers; (Fig.1, Column 5, lines 1-5).

a session state information managing system called by each of the application servers to allow different application servers to process requests belonging to a single session without requiring the requests to carry their entire session state information, wherein processing of each of the requests requires the session state information of that request. (Column 6, lines 5-29)

- <Claim 2>

The data service system of claim 1, wherein the session state information managing system further comprises

a session state information manager called by any one of the application servers when that application server processes a request of a session to (1) provide the session state information of the request to the application server and (2) generate a state reference for a new session state information for that request after the application server has processed the request and generated the new session state information for that request; (Column 9, lines 25-35)

a store that stores all session state information received by the session state information manager. (Column 9, lines 25-29)

- <Claim 3>

The data service system of claim 2, wherein the state reference generated is unique to the corresponding session state information and is a short and fixed length character string. (Column 6, lines 5-17)

- <Claim 8>

A session state information managing system in a data service system having a plurality of duplicate application servers, each for processing requests, comprising:

a session state information manager called by any one of the application servers when that application server processes a request of a session to (1)

provide the session state information of the request to the application server and
(2) generate a state reference for a new session state information for that request
after the application server has processed the request and generated the new
session state information for that request;

a store that stores all session state information received by the session
state information manager. (Column 5, lines 30-39)

- <Claim 9>

The session state information managing system of claim 8, wherein the
state reference generated is unique to the corresponding session state
information and is a short and fixed length character string. (Column 6, lines 5-9)

- <Claim 14>

A method of allowing different application servers in a data service system
to process requests belonging to a single session, comprising

(A) determining if a request starts a session;

if the request initiates the session, then

(B 1) processing the request in one of the application servers and
sending session state information of the request to a session state information
manager; (Column 9, lines 43-60)

(B2) receiving a state reference unique to the session state information
from the session state information manager and attaching the state reference

to the response to the request; (Column 9, lines 25-36)

if the request does not start the session, then

(C1) retrieving the session state information associated with the request from the session state information manager using a state reference contained in the request; (Column 6, lines 18-29)

(C2) processing the request with the retrieved session state information in one of the application servers and generating a new session state information; (Column 9, lines 61-67)

(C3) sending the new session state information of the request to the session state information manager to receive a new state reference unique to the new session state information and attaching the state reference to the response to the request. (Column 10, lines 27-36)

- <Claim 15>

The method of claim 14, wherein the step (C1) further comprises the steps of

verifying the session state information retrieved;

if the session state information is not verifiable, then performing the step (B 1);

if the session state information is verified, then performing the step (C2).
(Column 10, lines 1-14)

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 4-7, 10-13 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Hoang as applied to above.

15. With respect to claim 4-7, 10-13, and 16,

Hoang teaches session managing and storing the session information in a database (Hoang, column 5, lines 41-58). However, Hoang doesn't explicitly indicate using of any hashing to generate and manage session state information. However, hashing is well know in the art as evident by "Microsoft Computer Dictionary", 5th edition

16. As to claim 4,

The data service system of claim 3, wherein the session state information manager generates the state reference by

mapping the session state information to a sequence of bytes using a marshaling algorithm;

mapping the sequence of bytes to a digest using a cryptographic hash

algorithm;

mapping the digest to the character string using an encoding algorithm, thus forming the state reference. (Column 5, lines 41-58).

17. As to claim 4-7, 10-13 and 16, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Hoang by adding hashing that would make the system more meaningful to a user. The incorporation of hashing in Hoang would make the system versatile.

18. As to claim 5-7, 10-13 and 16 the rational given above is applied

- <Claim 5>

The data service system of claim 4, wherein the marshaling algorithm further comprises the property that can un-marshall the sequence of bytes into a replica of the session state information data structure without any loss of data. (Column 5, lines 41-58)

- <Claim 6>

The data service system of claim 4, wherein the digest mapped by the cryptographic hash algorithm is a fixed length, short sequence of bytes that is unique to the sequence of bytes. (Column 5, lines 41-58).

- <Claim 7>

The data service system of claim 4, wherein the encoding

algorithm maps each byte in the digest to its hexadecimal representation, and creates the resulting character string. (Column 5, lines 41-58)

- <Claim 10>

The session state information managing system of claim 9, wherein the session state information manager generates the state reference by

mapping the session state information to a sequence of bytes using a marshaling algorithm;

mapping the sequence of bytes to a digest using a cryptographic hash algorithm;

mapping the digest to the character string using an encoding algorithm, thus forming the state reference. (Column 5, lines 41-58).

- <Claim 11>

The session state information managing system of claim 10, wherein the marshaling algorithm further comprises the property that can unmarshal the sequence of bytes into a replica of the session state information data structure without any loss of data. (Column 5, lines 41-58)

- <Claim 12>

The session state information managing system of claim 10, wherein the digest mapped by the cryptographic hash algorithm is a fixed length, short

sequence of bytes that is unique to the sequence of bytes. (Column 5, lines 41-58).

- <Claim 13>

The session state information managing system of claim 10, wherein the encoding algorithm maps each byte in the digest to its hexadecimal representation, and creates the resulting character string. (Column 5, lines 41-58)

- <Claim 16>

The method of claim 14, wherein the session state information manager generates the State reference by

mapping the session state information to a sequence of bytes using a marshaling algorithm;

mapping the sequence of bytes to a digest using a cryptographic hash algorithm;

mapping the digest to the character string using an encoding algorithm, thus forming the state reference. (Column 5, lines 41-58).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- Belkin (U.S. Patent Number 6,701,367) discloses mechanism for enabling customized session managers to interact with a network server.
- Chiang (U.S. Pub. No. US2001/0047477) discloses method for transparent user and session management for web application.
- Choquier et al. (U.S. Patent Number 5,951,694) discloses method for redirecting a client service session to a second application server.
- Win et al. (U.S. Patent Number 6,161,139) discloses for storing information that defines administration roles.
- Voit et al. (U.S. Patent Number 6,137,869) discloses a network session management.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faruk Hamza whose telephone number is 571-272-7969. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached at 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more

Art Unit: 2155

information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll -free).

Faruk Hamza

Patent Examiner

Group Art Unite 2155


BHARAT BAROT
PRIMARY EXAMINER